

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE: Application of Steven Gerard BLANCHARD et al.

Serial No.: To be assigned

Art Unit:

Filing Date: Concurrently herewith

Examiner:

For: *Compositions and Methods for Evaluating  
and Designing Nuclear Receptor Ligands  
that Modulate Co-regulator Affinity*

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants request that the references identified on Form PTO-1449 appended hereto be considered by the Examiner and officially made of record in accordance with the provisions of 37 CFR 1.97

- ☒ Copies of the references listed on the attached form PTO-1449 as item nos. 1 and 3-48 re enclosed  
☐ Copies of the references were submitted in parent application Serial No. \_\_\_\_\_. (37 CFR 1.98(d))  
☒ A copy of the International Search Report which issued on International Application No. \_\_\_\_\_ PCT/US03/11055 is submitted herewith. All of the publications cited in the International Search Report are listed on the attached form PTO-1449 as item no. 2 and Applicants understand that copies have been supplied to the U.S. Patent Office by the International Bureau.

- A. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing date of the above application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 CFR 1.97(b).

OR

- ☐ The Information Disclosure Statement submitted herewith is being filed before the mailing of a first office action after the filing of a Request For Continued Examination under 37 C.F.R. 1.114 (37 C.F.R. 1.97(b)(4)).

- B. ☐ The Information Disclosure Statement transmitted herewith is being filed **after** three months of the filing date of the above application or the date of entry into the national stage as set forth in § 1.491 of an international application or after the mailing date of the first Office Action on the merits, whichever event occurred last, but **before** the mailing date of either:  
(1) a final action under § 1.113 or  
(2) a notice of allowance under § 1.311,  
whichever occurs first.

- ☐ Applicant hereby certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

- ☐ Applicant elects the option to pay the fee set forth in 37 CFR 1.17(p) for submission of an Information Disclosure Statement under § 1.97(c) (\$180.00).

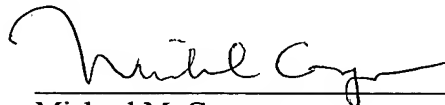
- C. ☐ The Information Disclosure Statement transmitted herewith is being filed **after** a final action under § 1.113, or a notice of allowance under § 1.311, whichever occurs first, but before the payment of the issue fee. Also enclosed is a copy of the International Search Report which Issued on International Publication No.

In accordance with the requirements of 37 CFR 1.97(d):

- ☐ Applicant hereby certifies that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. **[or]**
- ☐ Applicant hereby certifies that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of this statement; and
- ☐ The petition fee set forth in § 1.17(i)(1) (\$180.00) is submitted herewith.

- ☒ Please charge any required fees to Deposit Account No.07-1392.
- ☐ A duplicate copy of this paper is attached.

Respectfully Submitted,



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<b>FORM PTO-1449</b> <b>INFORMATION DISCLOSURE STATEMENT</b>				<b>ATTORNEY DOCKET NO.</b> PU4825USw		<b>SERIAL NO.</b> 104811055	
				<b>APPLICANT</b> Steven Gerard BLANCHARD et al.			
				<b>FILING DATE</b> Concurrently herewith		<b>GROUP</b>	
<b>U.S. PATENT DOCUMENTS</b>							
<b>Examiner Initials</b>		<b>Patent Number</b>	<b>Issue Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>	<b>Filing Date If Appropriate</b>
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		<b>Document Number</b>	<b>Publication Date</b>	<b>Country</b>	<b>Class</b>	<b>Subclass</b>	<b>Translation Yes   No</b>
	1.	WO 97/31907	09/04/1997	WIPO			
	2.	WO 01/75443	10/11/2001	WIPO			
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	3.	Bourguet et al., "Nuclear receptor ligand-binding domains: three-dimensional structures, molecular interactions and pharmacological implications," <i>Trends in Pharmacological Sciences</i> 21(10):381-388 (Oct. 2000).					
	4.	Bramlett et al., "Ligands specify coactivator nuclear receptor (NR) box affinity for estrogen receptor subtypes," <i>Molecular Endocrinology</i> 15(6):909-922 (Jun. 2001).					
	5.	Brown et al., "A novel N-aryl tyrosine activator of peroxisome proliferators-activated receptor-gamma reverses the diabetic phenotype of the Zucker diabetic fatty rat," <i>Diabetes</i> 48(7):1415-1424 (Jul. 1999).					
	6.	Brzozowski et al., "Molecular basis of agonism and antagonism in the oestrogen receptor," <i>Nature</i> 389(6652):753-758 (Oct. 1997).					
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	9.	Cobb et al., "N-(2-Benzoylphenyl)-L-tyrosine PPARgamma agonists. 3. Structure-activity relationship and optimization of the N-aryl substituent," <i>Journal of Medicinal Chemistry</i> 41(25):5055-5069 (Dec. 1998).					
	10.	Cohen et al., "The nuclear corepressors recognize distinct nuclear receptor complexes," <i>Molecular Endocrinology</i> 14(6):900-914 (Jun. 2000).					
	11.	Collins et al., "N-(2-Benzoylphenyl)-L-tyrosine PPARgamma agonists. 2. Structure-activity relationship and optimization of the phenyl alkyl ether moiety," <i>Journal of Medicinal Chemistry</i> 41(25):5037-5054 (Dec. 1998).					
	12.	Darimont et al., "Structure and specificity of nuclear receptor-coactivator interactions," <i>Genes &amp; Development</i> 12(21):3343-3356 (Nov. 1998).					
	13.	DiRenzo et al., "Peroxisome proliferators-activated receptors and retinoic acid receptors differentially control the interactions of retinoid X receptor heterodimers with ligands, coactivators, and corepressors," <i>Molecular &amp; Cellular Biology</i> 17(4):2166-2176 (Apr. 1997).					
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	14.	Dowell et al., "p300 functions as a coactivator for the peroxisome proliferators-activated receptor alpha," <i>Journal of Biological Chemistry</i> 272(52):33435-33443 (Dec. 1997).					
	15.	Gampe et al., "Asymmetry in the PPARgamma/RXRalpha crystal structure reveals the molecular basis of heterodimerization among nuclear receptors," <i>Molecular Cell</i> 5(3):545-555 (Mar. 2000).					
	16.	Gee et al., "Coactivator peptides have a differential stabilizing effect on the binding of estrogens and antiestrogens with the estrogen receptor," <i>Molecular Endocrinology</i> 13(11):1912-1923 (Nov. 1999).					
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	20.	Hu et al., "The CoRNR motif controls the recruitment of corepressors by nuclear hormone receptors," <i>Nature</i> 402(6757):93-96 (Nov. 1999).					
	21.	Issemann et al., "Activation of a member of the steroid hormone receptor superfamily by peroxisome proliferators," <i>Nature</i> 347(6294):645-650 (Oct. 1990).					
	22.	Kliwer et al., "Differential expression and activation of a family of murine peroxisome proliferators-activated receptors," <i>Proc. Nat'l. Acad. Sci. USA</i> 91(15):7355-7359 (Jul. 1994).					
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	24.	Lee et al., "A nuclear factor, ASC-2, as a cancer-amplified transcriptional coactivator essential for ligand-dependent transactivation by nuclear receptors <i>in vivo</i> ," <i>Journal of Biological Chemistry</i> 274(48):34283-34293 (Nov. 1999).					
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26.	Nagy et al., "Mechanism of corepressor binding and release from nuclear hormone receptors," <i>Genes &amp; Development</i> <b>13</b> (24):3209-3216 (Dec. 1999).
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30.	Perissi et al., "Molecular determinants of nuclear receptor-corepressor interaction," <i>Genes &amp; Development</i> <b>13</b> (24):3198-3208 (Dec. 1999).
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35.	Warnmark et al., "Differential recruitment of the mammalian mediator subunit TRAP220 by estrogen receptors ERalpha and ERbeta," <i>J. Biol. Chem.</i> <b>276</b> (26):23397-23404 (Jun. 2001).
36.	Webb et al., "The nuclear receptor corepressor (N-CoR) contains three isoleucine motifs (I/LXXII) that serve as receptor interaction domains (IDs)," <i>Molecular Endocrinology</i> <b>14</b> (12):1976-1985 (Dec. 2000).

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	45.	Zhang et al., "A nuclear receptor corepressor modulates transcriptional activity of antagonist-occupied steroid hormone receptor," <i>Molecular Endocrinology</i> 12(4):513-524 (Apr. 1998).					
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